

TRANSPORTATION RESEARCH BULLETIN

A Publication of Idaho Transportation Department Research

Vol. 1, No. 2 Winter 1998

Pacific Northwest States Consortium Develops Snow and Ice Control Products Specification

The states of Washington, Oregon, Montana and Idaho have formed a committee to develop specifications for chemicals related to snow and ice control. The consortium is comprised of technical experts in the fields of Chemistry, Environment, Corrosion Science and Legal/Purchasing. The consortium has been privileged to work with the foremost pioneers in deicing technology.

The states share the Columbia-Snake River Basin and other common drainage's and share similar geographic, climatological and environmental conditions that govern the choice of chemicals, work methods and equipment for snow and ice control. Although the focus of the consortium has been protection of sensitive resources specific to the Northwest, numerous other states have committed to adopt the specifications, based on environmental and performance considerations.

While considerable information has been developed on the environmental consequences of salts, little research has been developed on the environmental effects of other deicing chemicals. Public agency interest in environmental effects of winter maintenance practices continues to he high. The consortium embraced the opportunity to address environmental issues associated with the use of deicers.

Ron Wright of ITD and Dale Keep from Washington DOT presented the specifications at the 49th Annual Road Builders' Clinic in Coeur d Alene, Idaho this March. The intent of the document is to provide specifications for the highest quality products within reasonable budgetary constraints, balancing quality of environment with providing the safest possible transportation system for the traveling public during snow and ice conditions. Stringent quality control elements have also been developed in conjunction with manufacturers, distributors and transporters that will enable users to track product quality

Research Advisory Committee to Meet in May - FY1999 Research Proposals to be Reviewed

Research problem statements, submitted for the FY1999 Research Program, are due in the Research Office by 1 May 1998. Literature searches will be completed by the office prior to submitting the statements to the Research Advisory Committee in mid-May.

Historically, the principal researchers have originated the ideas and initiated the majority of problem statements. The researchers have then approached the appropriate technical section at ITD to collaborate on the final proposal. This year the emphasis will be on research proposals originated by the technical sections based on their specific needs. Assistance will be provided to section personnel in the preparation of the problem statements if needed.

Statewide and Sub-area Transportation Model Feasibility Study Completed

The historically based trend model, which ITD has used for statewide traffic projections, has serious limitations for planning purposes. In addition to planning, the Department needs a better tool to address the need for accurate traffic data for the assessment of environmental impacts related to transportation and support of the Pavement Management System and Highway Performance Monitoring System

As a result of these needs, the Department undertook an initial study to investigate the feasibility of developing a PC-based, multi-modal transportation model to facilitate statewide and regional transportation planning. The model would need to have the ability to integrate with the existing transportation planning models used by the metropolitan planning organizations.

Product Specification (Cont. from Page I, Col. 1)

through batch and lot numbering systems.

This consortium has evaluated the latest technological advances on the effectiveness of deicers. The committee coupled that information with the latest environmental impact data and challenged industry to accommodate the needs of highway maintenance operations in the Northwest.

The consortium developed specifications for nine categories of snow and ice control materials, including performance specifications for corrosion inhibitors. The corrosion inhibitor specifications represent one of the most stringent testing methods as developed by the Washington State Department of Transportation.

The consortium developed specifications for numerous categories of products to



enable users to choose from a wide range of the best products available on the market. By consolidating the resources and purchasing power of the four states, the consortium anticipates that the cost of these products will become more favorable. The consortium is also planning to take full advantage of this purchasing power through the development of a single, interstate bid in the future.

The consortium is excited for the opportunity of any interested States to adopt these specifications and to provide input to the consortium to further refine the specifications in the future.

Internet Provides Transportation Information as Close as Your Mouse

With the Internet available on most Department computers, most offices have access to web sites offering transportation information on just about any subject. Most state transportation departments have joined the USDOT, the Transportation Research Board, AASHTO, trade associations, transportation organizations, universities manufacturers and publishers in establishing a presence in cyber space. Most also provide a convenient method for contacting the webmaster to relay a request for additional information.

The following list of sites provides a fairly comprehensive starting point in your search for relevant information to help you do your job better and more efficiently. Many offer links to additional related sites. Information is available on products and procedures, as well as results of research, both published and in-progress.

Three international sites identified in the January/February issue of Public Roads include World Road Federation/PIARC, World Interchange Network, and International Road Federation. These sites and about 100 others can be accessed via the FHWA Office of International Programs web site.

ASSOCIATIONS

AASHTO

AASHTO RAC's Research in Progress
American Traffic Safety Services Assoc.
Asphalt Emulsion Manufacturers Assoc.
Asphalt Recycling & Reclaiming Assoc.
International Erosion Control Association
International Slurry Surfacing Association
National Aggregate Association
National Asphalt Pavement Association
National Precast Concrete Association

National Precast Concrete Association
Portland Cement Association

COMMERCIAL

Asphalt Contractor Online Engineering News Record National Asphalt Training Center II PaveNet

Roads & Bridges Online

www.portcement.org

www.aashto.org

www.atssa.com

www.ieca.org

www.hotmix.org

www.precast.org

www.wsdot.wa.gov/ppsc/research/racrip.htm

rampages.onramp.net/~prme/AEMApage.htm

rampages.onramp.net/~prime/arra.htm

www.history.rochchester.edu/issa

www.nationalaggregate.org

www.enr.com www.asphalt.com/natc/natcII.html www.mincad.com.au/pavenet www.roadsbridges.com

COMPUTER SOFTWARE

PCTRANS on the Internet SHAREWARE.COM Solutions Software Corp. CD Databases Superpave Performance Models & Software Travel Model Improvement Program kuhub.cc.ukans.edu/~pctrans/index.html www.shareware.com www.env-sol.com www.ence.umd.edu/superpave www.bts.gov/tmip/tmip.html

www.asphalt.ccom www.enr.com

EDUCATIONAL INSTITUTIONS

BSU Albertson Library

BSU Engineering Education & Research

Colleges & Universities

ISU College of Engineering

Kentucky Transportation Center

Louisiana Transportation Research Center

MIT Center for Transportation Studies

National Center for Asphalt Technology

NC State Trans. Engr. Systems & Materials

ND State Upper Great Plains Trans. Institute Northwestern Univ. Engr. & Applied Science

NW Univ. Infrastructure Technology Inst.

NW Univ. Traffic Institute

NW Univ. Transportation Center

Oregon State Univ. College of Engineering

Oregon State Univ. Trans. Research Institute

South Central Superpave Center

Texas Transportation Institute

Transportation Northwest Regional Center

U of I Engineering & Computer Science

U of I Library

U of I Nat. Ctr. for Adv. Trans. Technology

UC@Berkeley College of Engineering

UC@Berkeley Institute of Trans. Studies

Univ. of Florida Transportation Research Ctr.

Univ. of Illinois@Chicago: Urban Trans. Ctr.

Univ. of Mich. ITS Res. Ctr. for Excellence

Univ. of Minnesota Ctr. for Trans. Studies

Univ. of Washington College of Engineering

Univ. of Washington ITS

Univ. of Washington Libraries

UT@Austin Ctr. for Transportation Research

Utah State Univ. Trans. Systems Group

WV Univ. Staggers National Trans. Ctr.

library.idbsu.edu

coe.idbsu.edu/coe

dragon.princeton.edu/~dhb/schools.html

www.coe.isu.edu/engr

www.engr.uky.edu/KTC/ktctmb.html

www.ltrc.lsu.edu

web.mit.edu/cts/www

www.eng.auburn.edu/center/ncat

www2.ncsu.edu/eos/service/ce/www/graduate/

transportation

www.ugpti.org

www.tech.nwu.edu

iti.acns.nwu.edu

www.nwu.edu/traffic

nutcweb.tpc.nwu.edu.

www.engr.orst.edu

www.orst.edu/dept/ccee/tri.htm

www.utexas.edu/research/superpave

tti.tamu.edu

www.u.washington.edu/~transnow

www.uidaho.edu/engr

www.lib.uidaho.edu

www.uidaho.edu/ncatt

www.coe.berkeley.edu

www.its.berkeley.edu

www-uftrc.ce.ufl.edu

www.uic.edu/cupapa/utc/role.htm

its.engin.umich.edu/itsrce

www.umn.edu/cts

www.engr.washington.edu

www.ivhs.washington.edu

www.lib.washington.edu

www.utexas.edu/depts/ctr

www.engineering.usu.edu/Departments/cee/

transport

www.cemr.wvu.edu/~wwwtrans

GOVERNMENTAL AGENCIES

DOE National Transportation Program

DOE Office of Transportation Technologies

Federal Highway Administration

FHWA LTAP Resource Library

FHWA Office of Technology Applications

FHWA Office of International Programs

Highway TechNet - Office of Technology

Applications

Idaho Technology Transfer Center

Local Tech. Assist. Program Clearinghouse

National Highway Traffic Safety Admin.

www.ntpdoe.gov www.eren.doc.go

www.eren.doc.gov/ee-cgi-bin/ott.pl

www.fhwa.dot.gov

www.ltap.org

www.dot.gov/dotinfo/fhwa/hta/fhwahta.html

international.fhwa.dot.gov

www.ota.fhwa.gov

www.uidaho.edu/ncatt/idahot2

patriot.nct/~ltap/ltap.html

www.nhtsa.dot.gov

Continued on Page IV, Col. 1

Transportation Model (Cont. from Page I, Col. 2)

Review of statewide transportation models from Florida, Wyoming, Michigan, Vermont, Indiana, and Pennsylvania were conducted to determine the most appropriate procedure for developing a statewide model. Transportation planning efforts in Idaho were also reviewed. This effort included review of current metropolitan planning organization models as well as Idaho commodity flows. A review of available transportation planning software packages was conducted to select the most appropriate package for statewide modeling. TRANSPLAN was recommended as the best overall package by the research team. Since a transportation model requires the input of a transportation network, traffic data and land use data, the availability of existing digital databases was also assessed. This study has constructed the foundation for developing the Idaho statewide travel demand model.



On the basis of this feasibility study, ITD will implement phase two of this project, the development of the Idaho Statewide Transportation Model. The proposal for the model is represented in the final section of this report.

This project addresses the comprehensive nature of traffic flow, the need for better traffic projections, and the need to tie the model in with the Department's Geographical Information System (GIS). The integration of a GIS with traffic-demand modeling software has not been emphasized in other studies.

Internet Provides Information (Cont. from Page III, Col. 1)

GOVERNMENTAL AGENCIES (CONT.)

Northwest Technology Transfer Center www.wsdot.wa.gov/transaid/nwt2.htm
Other State Departments of Transportation www.ai.org/dot/otherstatedot.html

SHRP Information Clearinghouse www.hend.com/shrp
Turner-Fairbanks Highway Research Center www.tfhrc.gov
US DOT www.dot.gov
US DOT Bureau of Statistics www.bts.gov

WES - Airfields & Pavements Division pavement.wes.army.mil
Technology Sharing Program www.tsp.dot.gov

ORGANIZATIONS

Access ITS (Intelligent Trans. Society) www.itsa.org
American Concrete Institute www.aci-int.org
American Public Works Association www.pubworks.org
American Society for Testing & Materials www.astm.org
American Society of Civil Engineers www.asce.org

Asphalt Institute www.asphaltinstitute.org
Civil Engineering Research Foundation - www.cenet.org/hitec

HITEC

Institute of Transportation Engineers www.ite.org

International Road Federation www.irfnet.org/index.html

Precast/Prestressed Concrete Institute (PCI) www.pci.org

Salt Institute www.saltinstitute.org

Search TRB www.dcdata.com/trb/trb.htm?

Transportation Research Board (TRB) www.nas.edu/trb
TRB Cooperative Research Program www2.nas.edu/trbcrp

World Interchange Network (WIN) www.rme-win-rmi.qc.ca/anglais/menu.html

World Road Association/PIARC www.piarc.lcpc.fr/

TRB Trans. Research Information Service www.nas.edu/trb/about/tris.html

The Transportation Research Bulletin is published quarterly by the Idaho Transportation Department Research Office. The information, findings, views and recommendations in this publication reflect the views of the authors and are solicited from reliable source. However, they do not necessarily reflect the views of ITD or the FHWA. ITD makes no guarantee and assumes no responsibility for their accuracy, sufficiency or completeness.

Letters or articles are welcome.

STAFF

Asst. Mtls./Research Engineer Bob Smith - 208-334-8437 or bsmith@itd.state.id.us

Editor/Lab Research Engineer Stephen Loop - 208-334-8267 or sloop@itd.state.id.us



Idaho Transportation Department Post Office Box 7129 Boise, ID 83707-1129